

SYSPEND HMI SANITARY SYSTEM OVERVIEW



The Syspend Sanitary HMI (Human-Machine Interface) System is a Type 304 stainless steel enclosure series and suspension system designed to enclose, protect and suspend lightweight HMI devices up to a maximum load of 90 lb. (40.8 kg) in NEMA Type 4X environments.

The system features a modular design for application versatility and is specifically designed to meet the demanding needs of sanitary environments. The entire system meets Type 4X and IP69K requirements for high-pressure, high-temperature washdown applications.





nvent hoffman SYSPEND HMI SANITARY ENCLOSURE, TYPE 4X





INDUSTRY STANDARDS

UL 508A Listed; Type 4, 4X, 12; File No. E61997 cUL Listed per CSA C22.2 No 94; Type 4, 4X, 12; File No. E61997

NEMA/EEMAC Type 4, 4X, 12 CSA File No. 42186; Type 4, 4X, 12 IEC 60529, IP66, IP69K

APPLICATION

Specifically designed to house process control equipment in sanitary washdown environments, particularly food and beverage manufacturing. The enclosure features many clean design elements and meets Type 4X and IP69K requirements for high-pressure, hightemperature washdown applications.

FEATURES

- Enclosure provides modern, flat-screen monitor-style aesthetics
- Integrated side handles allow for easy repositioning of enclosure
- Fully concealed gasket area provides complete protection in
- washdown environments
- 20-degree sloped top facilitates runoff of water and cleaning solutions and prohibits the placement of objects on the top of the enclosure
- Slanted flange trough collar prohibits pooling of fluids along the top edge of the enclosure opening
- Enclosure can be flipped for either pendant or pedestal mounting
- Hinges are shielded by door
- Suspension arm adapter provided with enclosure; provides means of attachment to the Syspend Sanitary Suspension System and Syspend VHDS-Motion Arm
- Suspension arm adapter can be installed backwards to provide 40-degree tilt for pedestal applications

- Internal support plate included with each enclosure provides extra rigidity for suspension mounting
- Flat area provided for installing optional H2Omit Vent Drain to provide means of removing condensed moisture from the enclosure
- Optional adapter available for mounting enclosure to the Syspend VHDS-Motion arm

SPECIFICATIONS

- Constructed from 1.2-mm thick (18 gauge) Type 304 stainless steel
- Seams continuously welded and ground smooth
- One-piece, closed-cell silicone gasket
- Bonding provision on door; grounding stud on body
- Door secured with two stainless steel quarter-turn latches with flush slotted insert
- Panel studs on door fit optional NEMA-style panels
- Furnished hardware kit consists of illustrated instruction sheet, grounding hardware, internal support plate, suspension arm adapter and hardware for attaching the support plate and adapter

FINISH

External surfaces have a #3 brushed finish

MODIFICATION AND CUSTOMIZATION

nVent HOFFMAN excels at modifying and customizing products to your specifications. Contact your local nVent HOFFMAN sales office or distributor for complete information.

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Standard Product

| | | A1 | B1 | A2 | B2 | M x N | | | |
|----------------|-----------------------------------------|---------------|--------------|--------------|--------------|----------------------------|-------------|---------------------|----------------------|
| Catalog Number | AxBxC mm/in. | mm/in. | mm/in. | mm/in. | mm/in. | mm/in. | Steel Panel | Product Weight (kg) | Product Weight (lb.) |
| S303015SS | 300 x 300 x 150 11.81 x 11.81 x 5.91 | 300 11.81 | 300 11.81 | 385 15.17 | 394 15.53 | 228 x 238 8.97 x 9.35 | A8P6 | 6.9 | 15.3 |
| S304015SS | 300 x 400 x 150 11.81 x 15.75 x 5.91 | 300 11.81 | 400 15.75 | 385 15.17 | 494 19.46 | 228 x 338 8.97 x 13.29 | A10P8 | 8.0 | 17.7 |
| S404015SS | 400 x 400 x 150 15.75 x 15.75 x 5.91 | 400 15.75 | 400 15.75 | 485 19.11 | 494 19.46 | 328 x 337 12.92 x 13.26 | A12P10 | 9.4 | 20.7 |
| S405015SS | 400 x 500 x 150 15.75 x 19.68 x 5.91 | 400 15.75 | 500 19.68 | 485 19.11 | 594 23.40 | 323 x 437 12.92 x 17.20 | A16P10 | 10.7 | 23.6 |
| S505015SS | 500 x 500 x 150 19.68 x 19.68 x 5.91 | 500 19.68 | 500 19.68 | 585 23.04 | 585 23.40 | 428 x 48 16.87 x 17.25 | A16P10 | 12.2 | 27.0 |
| S506015SS | 500 x 600 x 150 19.68 x 23.62 x 5.91 | 500 16.68 | 600 23.62 | 585 23.04 | 694 27.34 | 428 x 538 16.87 x 21.19 | A18P16 | 13.7 | 30.2 |
| S303020SS | 300 x 300 x 200 11.81 x 11.81 x 7.87 | 300 11.81 | 300 11.81 | 421 16.59 | 394 15.53 | 233 x 237 9.15 x 9.33 | A8P6 | 7.8 | 17.2 |
| S304020SS | 300 x 400 x 200 11.81 x 15.75 x 7.87 | 300 11.81 | 400 15.75 | 421 16.59 | 494 19.46 | 233 x 337 9.15 x 13.26 | A10P8 | 9.0 | 19.9 |
| S404020SS | 400 x 400 x 200 15.75 x 15.75 x 7.87 | 400 15.75 | 400 15.75 | 521 20.52 | 494 19.46 | 332 x 338 13.09 x 13.29 | A12P10 | 10.5 | 23.1 |
| S405020SS | 400 x 500 x 200 15.75 x 19.68 x 7.87 | 400 15.375 | 500 19.68 | 521 20.52 | 594 23.40 | 332 x 438 13.09 x 17.23 | A16P10 | 11.9 | 26.2 |
| S505020SS | 500 x 500 x 200 19.68 x 19.68 x 7.87 | 500 19.68 | 500 19.68 | 621 24.46 | 594 23.40 | 432 x 438 17.01 x 17.23 | A16P10 | 13.5 | 29.8 |
| S506020SS | 500 x 600 x 200 19.68 x 23.62 x 7.87 | 500 19.68 | 600 23.62 | 621 24.46 | 694 27.34 | 432 x 538 17.01 x 21.17 | A18P16 | 15.1 | 33.3 |

Enclosure dimensions are based upon the rear door; non-usable space on front face provides required area for heat dissipation.





SYSPEND HMI SANITARY SYSTEM



INDUSTRY STANDARDS

Maintains NEMA Type 4, 4X and 12 and IEC IP69K enclosure ratings when properly installed per Hoffman instructions.

APPLICATION

Specifically designed to support the Syspend Sanitary HMI Enclosure in sanitary washdown environments, particularly food and beverage manufacturing. The suspension system supports up to 90 lb. (40.8 kg) at 3.3 ft. (1 m). Its modular design with multiple tube lengths and bent tubes allows for application versatility. The entire system meets Type 4X and IP69K requirements for high-pressure, high-temperature washdown applications.

FEATURES

- Type 304 stainless steel construction provides corrosion resistance and ease of cleaning
- Syspend-Lok attachment method prevents tubes from turning and pulling out of fittings and provides a watertight connection
- Straight, L- and U-shaped tubes available in various lengths to provide design flexibility
- Swivel and fixed couplings provide rigid connection point between tubes or between tube and enclosure
- Swivel and fixed base brackets provide secure attachment to wall, floor or machine with easy leveling capability
- Swivel fittings provide 330-degree rotation
- Optional base bracket cover can be used on wall, floor or machine* to cover exposed hardware on fixed base bracket (not intended to be mounted directly to a large enclosure)

SPECIFICATIONS

- Tubes and fittings constructed of Type 304 stainless steel
- Syspend-Lok Wrench Head included with each fitting to secure fittings to tubes

FINISH

External surfaces have a #3 brushed finish

NOTES

* Syspend HMI Sanitary Systems are not intended to be mounted directly to large enclosures.

MODIFICATION AND CUSTOMIZATION

nVent HOFFMAN excels at modifying and customizing products to your specifications. Contact your local nVent HOFFMAN sales office or distributor for complete information.



SYSTEM LOAD CAPACITY

The Syspend Sanitary HMI System load graph is the result of load capacity tests. Please contact nVnet HOFFMAN for specific application information.







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SYSPEND VHDS-MOTION ARM ADAPTER



Attaches the Syspend Sanitary HMI Enclosure to the VHDS-Motion Arm.

- Type 304 stainless steel Attaches with set screws to the
- Syspend Sanitary HMI Enclosure Bolts directly to the VHDS-Motion Arm (only campatible with
- VHDS26 and VHDS36 models with revision level A or greater)

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- Type 304 polished stainless steel Outer diameter of 64 mm (2.50 in.) •
- Inner diameter of 60 mm (2.37 in.) • • 2-mm (.06-in.) wall thickness

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| Catalog Number | L (mm) | L (in.) | Weight (kg) | Weight (lb.) |
|----------------|--------|---------|-------------|--------------|
| ST250SS | 250 | 9.84 | .45 | 1.0 |
| ST500SS | 500 | 19.68 | 1.61 | 3.55 |
| ST750SS | 750 | 29.53 | 2.27 | 5.0 |
| ST1000SS | 1000 | 39.37 | 2.72 | 6.0 |
| ST1250SS | 1250 | 49.21 | 3.88 | 8.55 |
| ST1500SS | 1500 | 59.06 | 4.58 | 10.1 |



L-SHAPED TUBING



Type 304 polished stainless steel Outer diameter of 64 mm (2.50 in.) Inner diameter of 60 mm (2.37 in.) 2-mm (.06-in.) wall thickness • • • •

BULLETIN: VM9

| | | W | | |
|----------------|---------------|--------------|-----------------|--------------|
| Catalog Number | L mm/in. | w mm/in. | Weight (kg) | Weight (lb.) |
| ST250250SS | 250 9.84 | 250 9.84 | 1.41 | 3.1 |
| ST500240SS | 500 19.68 | 240 9.45 | 2.20 | 4.85 |
| ST500500SS | 500 19.68 | 500 19.68 | 3.28 | 7.24 |
| ST1000500SS | 1000 39.37 | 500 19.68 | 5.76 | 12.7 |
| | | W | φ2.37 [60] - | |
| | | | Ø2.50 [64] | ₽ ₽ |
| | | | [04] | 89044643 |

U-SHAPED TUBING



- Type 304 polished stainless steel Outer diameter of 64 mm (2.50 in.) Inner diameter of 60 mm (2.37 in.) 2-mm (.06-in.) wall thickness

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|----|-----|-----|-----|----|
| | | | | |

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| | L | W | | |
|----------------|--------|--------|-------------|--------------|
| Catalog Number | mm/in. | mm/in. | Weight (kg) | Weight (lb.) |
| ST500240500SS | 500 | 240 | 3.76 | 8.3 |
| | 19.68 | 9.45 | | |
| ST800500800SS | 800 | 500 | 7.26 | 16.0 |
| | 31.50 | 19.68 | | |







- Provides means of attaching enclosure to tube
- Allows enclosure to rotate 330-degrees
- Syspend-Lok attachment method prevents tubes from turning and pulling out of fittings and provides a water-tight connection
- Type 304 polished stainless steel
- Includes Syspend-Lok Wrench Head for attaching coupling to tubes (strap wrench or spanner wrench that opens to 80 mm or greater can also be used)

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FIXED COUPLING



- Provides secure means of joining two tubes together
 Can also provide attachment of
- enclosure to tube when enclosure rotation is not desired
- Syspend-Lok attachment method prevents tubes from turning and pulling out of fittings and provides a water-tight connection
- a water-tight connection • Type 304 polished stainless steel
- Includes Syspend-Lok Wrench Head for attaching coupling to tubes (strap wrench or spanner wrench that opens to 80 mm or greater can also be used)









SWIVEL BASE BRACKET



- Provides means of attaching tube to the floor or a machine
- Provides 330-degree rotation Syspend-Lok attachment method prevents tubes from turning and pulling out of fittings and provides a water-tight connection
- Type 304 polished stainless steel Includes Syspend-Lok Wrench Head for attaching base bracket to tubes (strap wrench or spanner
- wrench that opens to 80 mm or greater can also be used) Includes 4 set screws that
- provides means of leveling the entire suspension system Surface mounting hardware not
- included

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FIXED BASE BRACKET



- Provides means of attaching tube
- to a wall, floor or machine Does not provide rotation
- Syspend-Lok attachment method prevents tubes from turning and pulling out of fittings and provides a water-tight connection
- Type 304 polished stainless steel Includes Syspend-Lok Wrench Head for attaching base bracket to tubes (strap wrench or spanner wrench that opens to 80 mm or greater can also be used)
- Includes 4 set screws that provide means of leveling the entire suspension system
- Surface mounting hardware not included
- Optional bracket cover available to hide all exposed mounting hardware

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- Covers the fixed base bracket (not compatible with the swivel base bracket)
 Provides means of covering all exposed mounting hardware
 Simply snaps into place over the base bracket
 Type 304 polished stainless steel

 - Type 304 polished stainless steel

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SYSPEND SANITARY ENCLOSURE SYSTEM CONFIGURATIONS

Note to Specifier: Select suspension system sizing using the Syspend Sanitary HMI System load capacity chart.

А



| Description | Qty. | Catalog Number |
|--------------------|------|--------------------------------|
| Fixed Base Bracket | 1 | SFBBSS |
| Swivel Coupling | 1 | SSCSS |
| U-Shaped Tubing | 1 | ST500240500SS ST800500800SS |

В



| Description | Qty. | Catalog Number |
|---------------------|------|--------------------------------|
| Swivel Base Bracket | 1 | SSBBSS |
| Swivel Coupling | 1 | SSCSS |
| U-Shaped Tubing | 1 | ST500240500SS ST800500800SS |

С



| Description | Qty. | Catalog Number |
|--------------------|------|-------------------------------------------------------|
| Fixed Base Bracket | 1 | SFBBSS |
| Fixed Coupling | 1 | SFCSS |
| L-Shaped Tubing | 2 | ST250250SS ST500240SS ST500500SS ST1000500SS |
| Swivel Coupling | 1 | SSCSS |

D



| Description | Qty. | Catalog Number |
|---------------------|------|-------------------------------------------------------|
| Fixed Coupling | 1 | SFCSS |
| L-Shaped Tubing | 2 | ST250250SS ST500240SS ST500500SS ST1000500SS |
| Swivel Base Bracket | 1 | SSBBSS |
| Swivel Coupling | 1 | SSCSS |



Е



| Description | Qty. | Catalog Number |
|--------------------|------|-------------------------------------------------------|
| Fixed Base Bracket | 1 | SFBBSS |
| L-Shaped Tubing | 2 | ST250250SS ST500240SS ST500500SS ST1000500SS |
| Swivel Coupling | 1 | SSCSS |

F



| Description | Qty. | Catalog Number |
|--------------------|------|-------------------------------------------------------------------------------|
| Fixed Base Bracket | 1 | SFBBSS |
| Fixed Coupling | 1 | SFCSS |
| Swivel Coupling | 1 | SSCSS |
| Straight Tubing | 1 | ST250SS ST500SS ST750SS ST1000SS ST1250SS ST1250SS ST1500SS |
| U-Shaped Tubing | 1 | ST500240500SS ST800500800SS |
| Base Bracket Cover | 1 | SBCSS |

G



| Description | Qty. | Catalog Number |
|--------------------|------|-------------------------------------------------------------------|
| Fixed Base Bracket | 1 | SFBBSS |
| Straight Tubing | 1 | ST250SS ST500SS ST750SS ST1000SS ST1250SS ST1500SS |
| Swivel Coupling | 1 | SSCSS |
| U-Shaped Tubing | 1 | ST500240500SS ST800500800SS |
| Base Bracket Cover | 1 | SBCSS |

13 HMI (HUMAN-MACHINE INTERFACE)

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I



| Description | Qty. | Catalog Number |
|--------------------|------|-------------------------------------------------------------------------------|
| Fixed Base Bracket | 1 | SFBBSS |
| Straight Tubing | 1 | ST250SS ST500SS ST750SS ST1000SS ST1250SS ST1250SS ST1500SS |
| Swivel Coupling | 1 | SSCSS |
| Base Bracket Cover | 1 | SBCSS |
| | | |
| | | |



| Description | Qty. | Catalog Number |
|--------------------|------|-------------------------------------------------------------------------------|
| Fixed Base Bracket | 1 | SFBBSS |
| Straight Tubing | 1 | ST250SS ST500SS ST750SS ST1000SS ST1250SS ST1250SS ST1500SS |
| Swivel Coupling | 1 | SSCSS |



| J | | | |
|---------------------|------|----------------|--|
| Description | Qty. | Catalog Number | |
| Swivel base Bracket | 1 | SSBBSS | |



Κ

L



| Description | Qty. | Catalog Number | |
|--------------------|------|----------------|--|
| Fixed Base Bracket | 1 | SFBBSS | |

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| Description | Qty. | Catalog Number | |
|-------------------------|------|----------------|--|
| VHDS Motion Arm Adapter | 1 | SVHDSA | |



Enclosure adapter can be flipped for angled viewing.



Notes